



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 21.12.2005
COM(2005) 667 final

2005/0281 (COD)

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on waste

(presented by the Commission)

{SEC(2005) 1681}

EXPLANATORY MEMORANDUM

1) CONTEXT OF THE PROPOSAL

- **Grounds for and objectives of the proposal**

The overall aim of this proposal for revision is to optimise the provisions of Directive 75/442/EEC whilst maintaining its essential structure and key provisions. What is suggested is a refinement of the Directive, rather than a root and branch overhaul.

The Thematic Strategy on the prevention and recycling of waste has identified three principal reasons for undertaking a revision of Directive 75/442/EEC, the Waste Framework Directive.

Firstly, it has become evident that a certain number of definitions in Directive 75/442/EEC are not sufficiently clear, leading to variation and uncertainty in the interpretation of these key provisions from Member State to Member State and in some cases from region to region. Partly as a consequence of this, a significant number of cases have required an interpretation from the European Court of Justice. This has led to considerable difficulties for economic operators and competent authorities.

The issues where there is a lack of legal certainty concern principally the definition of waste and the distinction between recovery and disposal. This proposal for the revision of the Waste Framework Directive puts forward clearer definitions and/or a mechanism to clarify the issue at the EU level as appropriate.

Secondly, the Thematic Strategy on the prevention and recycling of waste introduces a new approach to waste policy that is better adapted to a situation where most of the significant waste management operations are now covered by environmental legislation. It is important that the Waste Framework Directive is adapted to this approach.

This requires a number of changes. The most significant is the introduction of an environmental objective. Most environmental Directives now have such an objective, which helps to orient the entire Directive towards a specified aim. In the case of this proposal, the environmental objective focuses the Directive on the reduction of environmental impacts from waste generation and management, taking into account the whole life-cycle. It takes this focus from the Resource Strategy.

Another important part of this strategic change is the move to a more standards based approach. This proposal reinforces standards in a number of areas through the application of minimum standards, clear recovery definitions and the use of end of waste criteria.

Finally, this proposal strives to simplify the existing legal framework. It would repeal the Directive 75/439/EEC on the disposal of waste oils and integrate Directive 91/689/EEC on hazardous waste into the Waste Framework Directive. The Waste Oil Directive set out a priority for waste oils regeneration over other recovery options that is no longer justified. The provisions of the Hazardous Waste Directive are closely connected with the Waste Framework Directive and their integration into consolidates and simplifies legislation. In addition, some obsolete or unclear provisions in all three Directives should be modified or removed.

- **General context**

The history of waste is as old as the history of human society. Waste has been at the heart of the development of a European Union environment policy, with the Waste Framework Directive being one of the first legal measures taken to protect the environment at the EU level.

Since 1975, waste legislation has been developed significantly. In the first wave, the general framework was put in place, and a number of specific problems (waste oils, titanium dioxide) were tackled. In the second wave, standards for landfills and incinerators were developed. Finally, in the third wave, Recycling Directives put in place the necessary organisation and financing to facilitate the recycling of a number of priority waste flows (Packaging, End of Life Vehicles, WEEE).

Further major legislative actions are not required. However, action must be taken to optimise the current framework, and fill in remaining holes. This proposal for revision would put in place a number of these necessary actions; others will need to be addressed in the longer term.

If a revision of the Waste Framework Directive was not undertaken, the problems identified with the absence of legal certainty would continue to pose problems for economic operators and competent authorities, and the absence of standards in certain areas would undermine the level of protection of the environment and human health as well as the internal market in recycled products. Not adjusting the legal framework, and especially the Waste Oils and Hazardous Waste Directives to current knowledge and objectives would undermine the credibility of the EU policies in this field.

- **Existing provisions in the area of the proposal**

This proposal revises Directive 75/442/EEC (the Waste Framework Directive) and repeals both Directive 91/689/EEC on hazardous waste (the Hazardous Waste Directive) by integrating the provisions in the Waste Framework Directive, and Directive 75/439/EEC (the Waste Oil Directive) while integrating the specific collection obligation. The elements of these two Directives that remain relevant and justified are integrated into the proposal for a revised Waste Framework Directive. The Waste Framework Directive sets the definitions and ground rules for all the other pieces of EU legislation relative to waste - it therefore has a direct or indirect impact on them all.

In addition, in the field of permitting of waste installations, the Waste Framework Directive operates in conjunction with Directive 96/61/EC concerning integrated pollution prevention control (the IPPC Directive). In the past, there have been overlaps between these two Directives that have led to double permitting and an unnecessary increase in regulatory and administrative burden. Although these have mainly been created by Member State implementation of the Directives, this Directive contains explicit wording to make clear that this double permitting is not required by EU law.

A number of the elements that have not been taken up in this proposal from the Hazardous Waste Directive are adequately covered by other Community legislation such as Directive 2000/76/EC on the incineration of waste and Directive 96/59/EC on PCB/PCT.

- **Consistency with other policies and objectives of the Union**

Not applicable.

2) CONSULTATION OF INTERESTED PARTIES AND IMPACT ASSESSMENT

- **Consultation of interested parties**

Consultation methods, main sectors targeted and general profile of respondents

Following the Communication "Towards a Thematic Strategy on the prevention and recycling of waste [COM(2003) 301], an open Internet consultation of stakeholders was organised.

Secondly, the Commission organised five expert meetings in order to have an in depth discussion on subjects of particular importance to the Strategy (see below). In addition to this, there were three informal meetings with the Member States, and three stakeholder meetings, one of which being restricted to EU level organisations to facilitate debate.

Thirdly, there was an additional stakeholder consultation on the impact assessment, asking stakeholders to provide information on the likely impacts of a range of identified policy options. We received ninety replies to this consultation.

Fourthly, there were additional specific consultations of both stakeholders and the Member States on the Hazardous Waste Directive and the Waste Oils Directive.

Summary of responses and how they have been taken into account

It is not possible to cover all the comments received over the extensive consultation process outlined above. A summary of the comments received in response to the first Internet consultation is contained in the Thematic Strategy Communication, and all the replies to the open consultations along with the outcomes of the expert and focused stakeholder groups can be found on our Internet site: <http://europa.eu.int/comm/environment/waste/strategy.htm>

An open consultation was conducted over the internet from 10 May 2003 to 10 November 2003. The Commission received 220 responses. The results are available on http://forum.europa.eu.int/Public/irc/env/waste_strat/library?l=/test&vm=detailed&sb=Title.

- **Collection and use of expertise**

Scientific/expertise domains concerned

The main areas where scientific expertise was sought were life cycle analysis, waste prevention and recycling, recovery facility standards, definitions of waste, recovery and disposal.

Methodology used

The principal methodologies used were expert meetings and the commissioning of relevant studies. A critical review of existing studies and life cycle analysis on the regeneration and

incineration of waste oils was commissioned
(see http://europa.eu.int/comm/environment/waste/studies/oil/waste_oil.htm).

Main organisations/experts consulted

A wide range of experts from research institutes, consultants and industry were consulted and their opinions taken into account.

Summary of advice received and used

The existence of potentially serious risks with irreversible consequences has not been mentioned.

The advice received and used is too extensive and varied to be summarised here. The results of the expert meetings, studies and stakeholder consultations can be found at:
<http://europa.eu.int/comm/environment/waste/strategy.htm>,
http://europa.eu.int/comm/environment/waste/oil_index.htm,
http://europa.eu.int/comm/environment/waste/hazardous_index.htm.

Much of the findings are discussed in the Impact Assessment attached to the Thematic Strategy on the prevention and recycling of waste.

On the Waste Oils Directive, stakeholder contributions varied widely on the desirability and impact of the repeal of the regeneration priority. No consensus amongst stakeholders could be achieved on this issue.

Means used to make the expert advice publicly available

A summary of the outcome of the expert meetings was posted on the relevant Internet site.

• **Impact assessment**

The revision of Directive 75/442/EEC is one of the elements included in the package of the Thematic Strategy on the prevention and recycling of waste. An Impact Assessment was undertaken on the whole package.

The IA report contains an assessment of five sets of options each concerning a specific environmental issue and recommends the following combination of options:

- taking a resource approach to waste based on life-cycle thinking which involves improving the information base and clarifying the environmental objective of waste policy;
- moving to a European recycling society by developing common environmental requirements for waste recycling;
- modernising the legislative framework by revising waste framework legislation and adopting guidelines for issues needing case by case approaches.

Additionally, the IA recommends that the priority given by Directive 75/439/EEC to the regeneration of waste oils should be repealed and efforts should be focused on collection of waste oils.

Several of these options translate into proposals for legal provisions of a framework character. The IA shows that they should generally result in improved eco-efficiency of EU waste policy and that the specific impacts of such framework approaches will depend on the implementation measures taken at EU or national levels.

This Directive contains provisions that implement elements of each of the preferred options of the IA, including:

- the introduction of an environmental objective in the Waste Framework Directive. This will incorporate life-cycle thinking in waste policies and enhance their cost-effectiveness;
- the determination of end-of-waste criteria. This will make it possible to set criteria for specific waste streams which ensure that recycled materials do not harm the environment and will result in reduce administrative burden for the operators producing recycled materials complying with these criteria;
- the obligation for Member States to develop waste prevention programmes. This provision is not expected to have major direct environmental, economic or social impacts, although the impacts will vary according to the actions taken. It will increase the focus of policy makers at EU, national and sub-national levels on prevention thereby triggering an increase in waste prevention policies. It allows for the necessary flexibility in developing national and local solutions to capture the benefits of waste prevention;
- the simplification of waste legislation and in particular the clarification of definitions. This will have positive environmental and economic impacts and will be combined with interpretative guidelines to deal with issues on a case by case basis when legislation is too rigid;
- the repeal of the priority given to the regeneration of waste oils will reduce the costs of managing this waste flow while focussing on the main environmental issue, i.e. collection of waste oils. This will result in improved eco-efficiency of waste oils management.

The Commission carried out an impact assessment listed in the Work Programme. The report is accessible on <http://europa.eu.int/comm/environment/waste/strategy.htm>.

3) LEGAL ELEMENTS OF THE PROPOSAL

• Summary of the proposed action

The Waste Framework Directive was first adopted in 1975, and then revised by Council Directive 91/156/EEC on 18 March 1991. The proposal revises the Waste Framework Directive, and repeals both Directive 91/689/EEC by integrating the provisions in the waste framework Directive and Directive 75/439/EEC, while integrating the specific collection obligation.

The main amendments to the Waste Framework Directive are as follows:

The introduction of an environmental objective.

The clarification of the notions of recovery and disposal.

The clarification of the conditions for the mixing of hazardous waste.

The introduction of a procedure to clarify when a waste ceases to be a waste for selected waste streams.

The introduction of minimum standards or a procedure to establish minimum standards for a number of waste management operations.

The introduction of a requirement to develop national waste prevention programmes.

- **Legal basis**

The primary objective of the Directive is the protection of the environment. This proposal is therefore based on Article 175 EC, as was the previous revision of the Waste Framework Directive.

- **Subsidiarity principle**

The subsidiarity principle applies insofar as the proposal does not fall under the exclusive competence of the Community.

The objectives of the proposal cannot be sufficiently achieved by the Member States for the following reasons:

The Waste Framework Directive sets the basis for European co-operation in the area of waste. It sets minimum standards for the internal market in waste for recycling, and is crucial to the operation of all the other Directives and Regulations in the field of waste. It is a framework Directive, and allows detailed implementation to be carried out at the Member State level.

On the other hand, the repeal of the requirement to give priority to the processing of waste oils by regeneration leaves the prioritisation of specific, environmentally preferable technologies to the Member State.

Action on the other waste issues by the Member States alone would render the internal market in waste for recycling inoperable and damage co-operation on other forms of waste treatment. This would lead to significant economic and environmental costs.

Community action will better achieve the objectives of the proposal for the following reasons.

Only action at the EU level can guarantee that the environment and human health is protected from the potentially deleterious effects of waste generation and management.

Waste is moved throughout the EU and indeed internationally. The environmental impact of the generation and management of waste in terms of air, soil and water pollution knows no borders. In addition, an internal market in waste for recycling can only exist where there is a

common EU definition of key notions such as "waste", "recovery" and "disposal", and where there are common minimum standards relating to the handling of waste.

The revision of the Waste Framework Directive preserves the framework nature of the Directive. It regulates aspects such as definitions and minimum standards, whilst allowing the Member States to implement the details of their waste management approaches at the national, regional or local level.

The proposal therefore complies with the subsidiarity principle.

- **Proportionality principle**

The proposal complies with the proportionality principle for the following reasons.

The proposal for the revision of the Waste Framework Directive significantly simplifies the existing Directive. It also repeals two other Directives, and integrates the aspects of those Directives that remain pertinent into the revised Waste Framework Directive. As a framework Directive, it regulates only points on which it is essential that there is a harmonised approach, allowing for national decisions in other areas.

The proposal introduces a number of innovations that will reduce the financial and administrative burden of waste regulation whilst preserving a high level of protection of the environment and human health.

- **Choice of instruments**

Proposed instruments: framework directive.

Other means would not be adequate for the following reason.

A less flexible legal measure would be disproportionate, given the need to allow for national differences in the management of waste as well as cultural and geographical differences. A voluntary or more flexible measure would not give the legal certainty necessary for the operation of the internal market and the assurance for citizens that health and environmental protection are not adversely affected by the generation and management of waste, throughout the whole of the EU.

4) BUDGETARY IMPLICATION

The proposal has no implication for the Community budget. The measures contained in the proposal remain within the current financial framework and the legislation proposed for the period 2007-2013.

5) ADDITIONAL INFORMATION

- **Simplification**

The proposal provides for simplification of legislation, simplification of administrative procedures for public authorities (EU or national), and simplification of administrative procedures for private parties.

The proposal for the revision of the Waste Framework Directive simplifies, modernises and clarifies the Waste Framework Directive in a number of ways. In addition, it repeals two existing Directives, eliminates the redundant provisions and incorporates the remaining provision in the revised proposal. This simplifies the structure of EU waste legislation.

The waste management plan obligation has been clarified and simplified.

A procedure allowing for end of waste criteria to be set, clarifying where a waste ceases to be a waste is introduced, thereby introducing regulatory relief for recycled products or materials that represent a low risk for the environment.

The potential permitting overlap between the Waste Framework Directive and the IPPC Directive has been clarified, in order to reduce the chances of double permitting being demanded at the Member State level.

The proposal is included in the Commission's rolling programme for up-date and simplification of the *acquis communautaire* and its Work and Legislative Programme under the reference WP 05 2004/ENV/001.

- **Repeal of existing legislation**

The adoption of the proposal will lead to the repeal of existing legislation.

- **Correlation table**

The Member States are required to communicate to the Commission the text of national provisions transposing the Directive as well as a correlation table between those provisions and this Directive.

- **European Economic Area**

The proposed act concerns an EEA matter and should therefore extend to the European Economic Area.

- **Detailed explanation of the proposal**

Article 1 sets out the objective of the proposed Directive.

The new objective refocuses the Waste Framework Directive on the environmental impacts of the generation and management of waste, taking into account the life cycle of resources. It links the 'waste hierarchy', formerly contained in Article 3 of Directive 75/442/EEC, to this objective, without changing the order or nature of the hierarchy. The wording of the hierarchy is modernised, in order to take into account evolutions in the nature of the terms used.

Article 2 sets out the scope of the proposed Directive.

Article 2, second paragraph, is amended in order to restrict the notion of 'covered by other legislation' to Community legislation only. This is in order to improve legal certainty and to ensure a minimum coverage at the Community level. It also includes new exclusions on contaminated unexcavated soil, animal by-products and agricultural by-products.

Article 3 contains the definitions for the purposes of this Directive and the Directives that make reference to it.

The definition of waste is unchanged, but a mechanism is added in Chapter III to allow the possibility of clarifying when certain wastes cease to be wastes by specifying criteria via a comitology process for those waste streams that meet the tests set out in Article 11.

The definition of re-use is defined in the same way as it is in the Packaging and Packaging Waste Directive.

A definition of recycling is added in order to clarify the scope of this notion.

The definition of collection is revised to clarify that it covers the act of collecting the waste and bringing it together in order that such waste may be transported to the appropriate waste treatment site, but not the waste treatment operations involved with mixing or sorting the waste.

The definitions of 'producer', 'holder', and 'management' are substantially unchanged.

Article 4 maintains the legal basis for the waste list established by Commission Decision.

Articles 5 and 6 contain a revised definition of recovery that confirms that the basis for this definition is the substitution of resources. In combination with the definition of disposal, it allows for the settling of difficult distinctions via the setting of efficiency criteria where appropriate. It also contains procedures that allow for the clarification of the classification of certain waste operations as recovery or disposal, where this is necessary, via a comitology process.

Articles 7 and 8 now set out both the general obligation to ensure that waste is managed in a way that does not endanger the environment or human health and that waste is handled in a way that is compatible with the Directive. The wording of these obligations is unchanged from Directive 91/156/EEC.

Article 9 on the cost of treatment is extended to recovery operations as well as disposal operations. It is amended to make it clear that the costs of waste management that must be borne by the waste holders or producer should reflect the full externalities of the disposal or recovery of such waste. In other words it should reflect the real cost of the generation and management of such waste on the environment.

Article 10 on the network of disposal installations is substantially unchanged.

Chapter III contains a mechanism to allow the possibility of clarifying when certain wastes cease to be wastes by specifying criteria via a comitology process for those waste streams that meet the tests set out in Article 11.

Articles 12 to 15 on hazardous waste are incorporated from the Hazardous Waste Directive into the revised Waste Framework Directive. The definition of hazardous waste is revised to clarify the notion of domestic waste and its exclusion from the definition.

Article 16 on the separation of hazardous wastes is incorporated from the Hazardous Waste Directive into the revised Waste Framework Directive. The derogation to the mixing ban is

maintained, but is made subject to conformity with Best Available Techniques. The reference to 'safety' is removed, as it is not now a term that is used in waste legislation and is not compatible with a focus on environmental impacts.

Article 17 on the labelling of hazardous wastes is incorporated from the Hazardous Waste Directive into the revised Waste Framework Directive.

Article 18 on mineral waste oils carries over the obligation to separately collect such waste oils from the Waste Oil Directive.

Article 19 combines the two previous articles on permits for recovery and disposal but is otherwise unchanged.

Article 20 specifies that an establishment or undertaking that has an IPPC permit does not in addition require a Waste Framework Directive permit.

Article 21 allows the Commission to set minimum standards for permits through comitology where this would be necessary.

Articles 22 to 24 set out the conditions under which permit exemptions may be granted for waste and hazardous waste.

Article 25 reinforces the requirements that apply to collectors, transporters, dealers and brokers. It introduces a procedure that may be used to adopt minimum standards in this area.

Article 26 on waste management plans has been redrafted in order to make clearer what should be contained in a waste management plan. It also specifies that a life-cycle approach should be taken to the elaboration of these plans.

Articles 29 to 31 put in place a specific article on waste prevention, requiring the Member States to draw up waste prevention programmes and setting down the conditions under which those programmes should be developed.

Article 32 on inspection is reinforced by a specific requirement to cover the origin and destination of the waste collected and transported.

Article 34 now contains a review clause as well as the previous reporting measures.

The remaining Articles are substantially unchanged.

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on waste

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission¹,

Having regard to the opinion of the European Economic and Social Committee²,

Having regard to the opinion of the Committee of the Regions³,

Acting in accordance with the procedure laid down in Article 251 of the Treaty⁴,

Whereas:

- (1) Council Directive 75/442/EEC of 15 July 1975 on waste⁵ establishes the legislative framework for the handling of waste in the Community. It defines key concepts such as waste, recovery and disposal and puts in place the essential requirements for the management of waste, notably the obligation for waste management operations and economic operators to have a permit or to be registered, the obligation for Member States to set up waste management plans and major principles such as the obligation to handle waste in a way that does not have a negative impact on the environment, and the principle that producers of waste should have to pay the cost of its treatment.
- (2) Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the sixth Community Environment Action Programme⁶ calls for development or revision of the legislation on wastes, including, inter alia, clarification

¹ OJ C.....

² OJ C.....

³ OJ C.....

⁴ Opinion of the European Parliament of (OJ C), common position of the Council of (OJ C) and Decision of the European Parliament of (OJ C).

⁵ OJ L 194, 25.7.1975, p. 39. Directive as last amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1).

⁶ OJ L 242, 10.9.2002, p. 1.

of the distinction between waste and non-waste and development of adequate criteria for the further elaboration of Annexes IIA and IIB to Directive 75/442/EEC.

- (3) The Commission Communication of 27 May 2003 towards a Thematic Strategy on the prevention and recycling of waste noted the need to assess the existing definitions of recovery and disposal, the need for a generally applicable definition of recycling and a debate on the definition of waste.
- (4) In its resolution of 20 April 2004 the European Parliament called on the Commission to consider extending Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control⁷ to the waste sector as a whole. It also asked the Commission to differentiate clearly between recovery and disposal and to clarify the distinction between waste and non-waste.
- (5) In its conclusions of 1 July 2004 the Council called on the Commission to bring forward a proposal for a revision of certain aspects of Directive 75/442/EEC, in order to clarify the distinction between waste and non-waste and the distinction between recovery and disposal.
- (6) It is therefore necessary to revise Directive 75/442/EEC in order to clarify key concepts such as the definitions of waste, recovery and disposal, to strengthen the measures that must be taken on waste prevention, to introduce an approach that takes into account the whole life-cycle of products and materials and not simply the waste phase, and to focus on reducing the environmental impacts of waste generation and waste management, thereby strengthening the economic value of waste. In the interests of clarity and readability, Directive 75/442/EEC should be replaced.
- (7) Since most significant waste management operations are now covered by Community legislation in the field of environment, it is important that this Directive be adapted to that approach. An emphasis on the environmental objectives laid down in Article 174 of the Treaty would enable a sharper focus upon the environmental impacts of waste generation and waste management throughout the life-cycle of resources. Consequently, the legal basis for this Directive should be Article 175.
- (8) Economic instruments, when they are cost effective, have proven to be and should be effective in achieving waste prevention and management objectives. Waste has value as a resource and the further application of economic instruments will maximise environmental benefits. Their use at the appropriate level should therefore be encouraged in this Directive.
- (9) Regulation (EC) No 1774/2002 of the European Parliament and of the Council lays down health rules concerning animal by-products not intended for human consumption⁸. It lays down inter alia proportionate controls as regards the processing, use and disposal of all waste of animal origin, preventing it from presenting a risk to animal and public health. It is therefore necessary to clarify the link with that Regulation, avoiding duplication of rules by excluding animal by-products where they are intended for uses that are not considered waste operations.

⁷ OJ L 257, 10.10.1996, p. 26. Directive as last amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1).

⁸ OJ L 273, 10.10.2002, p. 1.

- (10) In the light of the experience gained in applying Regulation (EC) No 1774/2002, it is appropriate to clarify the scope of waste legislation and of its provisions on hazardous waste as regards animal by-products as regulated by Regulation (EC) No 1774/2002. Where animal by-products pose potential health risks the appropriate legal instrument to address these risks is Regulation (EC) No 1774/2002 and overlaps with waste legislation should be avoided.
- (11) A definition of re-use should be added in order to clarify the ambit of this operation in general waste treatment and the role of the re-use of materials or products that are within the scope of the definition of waste. The definition of re-use should not cover the re-use of products which do not become waste in the first place, and should relate, therefore, only to activities which lead to the re-use of products or components that have become waste.
- (12) A definition of recycling should be added to the Waste Framework Directive in order to clarify the scope of this concept.
- (13) The definitions of recovery and disposal need to be modified in order to ensure a clear distinction between the two concepts, based on a genuine difference in environmental impact, and more specifically on whether or not the operation leads to the substitution of natural resources in the economy. In addition it is necessary to add a corrective mechanism to clarify cases where this distinction is difficult to apply in practice or where the classification of the activity as recovery does not match the real environmental impact or the operation.
- (14) In order to clarify certain aspects of the definition of waste, it is necessary to specify when certain wastes are to be deemed to cease to be a waste and to become a secondary material or substance, on a category by category basis. The provision of a mechanism whereby reclassification is subject to criteria that provide a high level of environmental protection should provide an environmental and economic benefit.
- (15) It is appropriate that costs be allocated in such a way as to reflect the real cost to the environment of the generation and management of that waste.
- (16) It is necessary, in order to enable the Community as a whole to become self-sufficient in waste disposal and the Member States to move towards that aim individually, to make provision for a network of cooperation as regards disposal installations, taking into account geographical circumstances and the need for specialised installations for certain types of waste.
- (17) It is necessary to specify further the scope and content of the waste management planning obligation, notably in terms of the coverage of historical contaminated sites and the use of economic instruments, and to integrate into the process of developing or revising such plans the need to take into account the environmental impacts throughout the life-cycle of products and materials. Account should also be taken, where appropriate, of the waste planning requirements laid down in Article 14 of Directive 94/62/EC⁹ of the European Parliament and of the Council of 20 December 1994 on packaging and packaging waste, and the strategy for the reduction of

⁹ OJ L 365, 31.12.1994, p. 10.

biodegradable waste going to landfills, referred to in Article 5 of Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste¹⁰.

- (18) In order to improve the way in which waste prevention actions are taken forward in the Member States and to facilitate the circulation of best practice in this area, it is necessary to strengthen the provisions relating to waste prevention and to introduce a requirement for the Member States to develop waste prevention programmes concentrating on the key environmental impacts and taking into account the whole life-cycle. Such objectives and measures should aim to break the link between economic growth and the environmental impacts associated with the generation of waste. Stakeholders, as well as the general public, should have the opportunity to participate in the drawing up of the programmes, and should have access to them once drawn up, in line with Directive 2003/35/EC of the European Parliament and of the Council¹¹.
- (19) Certain provisions on the handling of waste, laid down in Council Directive 91/689/EEC of 12 December 1991 on hazardous waste¹², should be amended in order to remove obsolete material and to improve the clarity of the text. In the interests of the simplification of Community legislation, they should be integrated into the present Directive. In order to clarify the operation of the mixing ban, and to protect the environment and human health, the exemptions to the mixing ban laid down in Directive 91/689/EEC should be confined to situations where such mixing represents best available techniques as defined in Directive 96/61/EC. Directive 91/689/EEC should therefore be repealed.
- (20) Since the priority given to regeneration in Council Directive 75/439/EEC of 16 June 1975 on the disposal of waste oils¹³ no longer reflects a clear environmental benefit, that Directive should be repealed. However, as the separate collection of waste oils remains crucial to their proper management and the prevention of damage to the environment from their improper disposal, the collection obligation for waste oils should be integrated into the present Directive. Directive 75/439/EEC should therefore be repealed.
- (21) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission¹⁴.
- (22) Since the objectives of this Directive of protecting the environment and ensuring the proper functioning of the internal market cannot be sufficiently achieved by the Member States and can therefore, by reasons of the scale or effects of the action, be better achieved at Community level, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives,

¹⁰ OJ, L 182, 16.7.1999, p. 1.

¹¹ OJ L 156, 25.6.2003, p. 17.

¹² OJ L 377, 31.12.1991, p. 20. Directive amended by Directive 94/31/EC (OJ L 168, 2.7.1994, p. 28).

¹³ OJ L 194, 25.7.1975, p. 23. Directive as last amended by Directive 2000/76/EC of the European Parliament and of the Council (OJ L 332, 28.12.2000, p. 91).

¹⁴ OJ L 184, 17.7.1999, p. 23.

HAVE ADOPTED THIS DIRECTIVE:

Chapter I

Subject matter, scope and definitions

Article 1 *Subject matter*

This Directive lays down measures with a view to reducing the overall environmental impacts, related to the use of resources, of the generation and management of waste.

For the same purposes, it also makes provision whereby the Member States are to take measures, as a matter of priority, for the prevention or reduction of waste production and its harmfulness and, secondly, for the recovery of waste by means of re-use, recycling and other recovery operations.

Article 2 *Scope*

This Directive shall not cover gaseous effluents emitted into the atmosphere.

1. It shall not cover the following categories of waste, as regards certain specific aspects of those categories which are already covered by other Community legislation:
 - (a) radioactive waste;
 - (b) waste resulting from prospecting, extraction, treatment and storage of mineral resources and the working of quarries;
 - (c) faecal matter and other natural, non-dangerous substances used in farming;
 - (d) waste waters, with the exception of waste in liquid form;
 - (e) decommissioned explosives;
 - (f) unexcavated contaminated soil.
2. It shall not cover animal carcasses or animal by-products intended for uses in accordance with Regulation (EC) No 1774/2002 without prejudice to the application of the present Directive to the treatment of biowaste that contains animal by-products.
3. It shall not cover faecal matter, straw and other natural non-hazardous substances from agricultural production that are used in farming or for the production of energy from biomass through using processes or methods which do not harm the environment or endanger human health.

4. 'animal carcasses' as referred to in paragraph 2 means animals that die other than by being slaughtered, including animals killed to eradicate an epizootic disease, in the context of agricultural or farming practices.

Article 3
Definitions

For the purposes of this Directive, the following definitions shall apply:

- (a) 'waste' means any substance or object which the holder discards or intends or is required to discard;
- (b) 'producer' means anyone whose activities produce waste or anyone who carries out pre-processing, mixing or other operations resulting in a change in the nature or composition of this waste;
- (c) 'holder' means the producer or the natural or legal person who is in possession of the waste;
- (d) 'management' means the collection, transport, recovery and disposal of waste, including the supervision of such operations and after-care of disposal sites;
- (e) 'collection' means the gathering of waste for the purposes of transport to a waste treatment facility;
- (f) 're-use' means any recovery operation by which products or components that have become waste are used again for the same purpose for which they were conceived;
- (g) 'recycling' means the recovery of waste into products, materials or substances whether for the original or other purposes. It does not include energy recovery;
- (h) 'mineral waste oils' means any mineral-based lubrication or industrial oils which have become unfit for the use for which they were originally intended, and in particular used combustion engine oils and gearbox oils, mineral lubricating oils, oils for turbines and hydraulic oils;
- (i) 'treatment' means recovery or disposal.

Article 4
List of wastes

A list of wastes shall be established by the Commission, in accordance with the procedure referred to in Article 36(2).

The list shall include waste to be regarded as hazardous pursuant to Articles 12 to 15, taking into account the origin and composition of the waste and, where necessary, limit values of concentration.

Chapter II

Recovery and disposal

SECTION 1

GENERAL

Article 5

Recovery

1. Member States shall take the necessary measures to ensure that all waste undergoes operations that result in it serving a useful purpose in replacing, whether in the plant or in the wider economy, other resources which would have been used to fulfil that function, or in it being prepared for such a use, hereinafter “recovery operations”. They shall regard as recovery operations at least the operations listed in Annex II.
2. The Commission may, in accordance with the procedure referred to in Article 36(2), adopt implementing measures in order to set efficiency criteria on the basis of which operations listed in Annex II may be considered to have resulted in a useful purpose, as referred to in paragraph 1.

Article 6

Disposal

1. Member States shall ensure that, where recovery in accordance with Article 5(1) is not possible, all waste undergoes disposal operations.

They shall prohibit the abandonment, dumping or uncontrolled disposal of waste.
2. Member States shall regard as disposal operations at least the operations listed in Annex I, even where the operation has as a secondary consequence the reclamation of substances or energy.
3. Where, despite substitution of resources taking place, the results of an operation indicate that, for the purposes of Article 1, it has only a low potential, the Commission may, in accordance with the procedure referred to in Article 36(2), adopt implementing measures adding that specific operation to the list set out in Annex I.

Article 7

Conditions

Member States shall ensure that the recovery or disposal of waste is carried out as follows:

- (a) without endangering human health;
- (b) without using processes or methods which could harm the environment;

- (c) without risk to water, air, soil and plants and animals;
- (d) without causing a nuisance through noise or odours;
- (e) without adversely affecting the countryside or places of special interest.

Article 8
Responsibility

Member States shall ensure that any holder of waste carries out its recovery or disposal himself or has its recovery or disposal handled by an establishment or undertaking which carries out waste treatment operations or arranged by a private or public waste collector.

SECTION 2
COSTS AND NETWORKS

Article 9
Costs

Member States shall ensure that the costs entailed in the recovery or disposal of waste are allocated, as appropriate, between the holder, previous holders and the producer.

Article 10
Network of disposal installations

Each Member State shall take appropriate measures, in cooperation with other Member States where this is necessary or advisable, to establish an integrated and adequate network of disposal installations, taking account of the best available techniques within the meaning of Article 2(11) of Directive 96/61/EC, hereinafter “best available techniques”.

The network shall be designed to enable the Community as a whole to become self-sufficient in waste disposal and the Member States to move towards that aim individually, taking into account geographical circumstances or the need for specialised installations for certain types of waste.

The network shall enable waste to be disposed of in one of the nearest appropriate installations, by means of the most appropriate methods and technologies in order to ensure a high level of protection for the environment and public health.

Chapter III

End of waste

Article 11

Secondary products materials and substances

1. With a view to determining whether it is appropriate to deem certain waste to have ceased being waste, to have completed a re-use, recycling or recovery operation, and to reclassify that waste as secondary products materials or substances, the Commission shall assess whether the following conditions are met:
 - (a) reclassification would not lead to overall negative environmental impacts;
 - (b) a market exists for such a secondary product, material or substance.
2. On the basis of its assessment pursuant to paragraph 1, the Commission shall, in accordance with the procedure referred to in Article 36(2), adopt implementing measures in respect of a specific product, material or substance category of waste, specifying the environmental and quality criteria to be met in order for that waste to be deemed to have become a secondary product material or substance.
3. The criteria set pursuant to paragraph 2 shall be such as to ensure that the resulting secondary product, material or substance meets the necessary conditions to be placed on the market.

The criteria shall take into account any risks of environmentally harmful use or shipment of the secondary material or substance, and shall be set at a level that guarantees a high level of protection for human health and the environment.

Chapter IV

Hazardous waste

SECTION ONE

CLASSIFICATION AND LISTING

Article 12

Classification

Waste shall be regarded as hazardous waste if it displays one or more of the properties listed in Annex III.

Hazardous waste produced by households shall not be regarded as hazardous waste until it is collected by an undertaking which carries out waste treatment operations or by a private or public waste collector.

Animal by-products and products derived from them, covered by Regulation (EC) No 1774/2002, shall not be subject to the provisions of this Directive that apply to hazardous waste unless they have been mixed with hazardous waste.

Article 13

List

The Commission shall, in accordance with the procedure referred to in Article 36(2), establish a list of hazardous wastes, hereinafter “the list”.

The list shall take into account the origin and composition of the waste and, where necessary, limit values of concentration.

Article 14

Unlisted hazardous waste

1. A Member State may treat waste as hazardous where, even though it does not appear as such on the list of wastes referred to in Article 4, hereinafter “the list”, it displays one or more of the properties listed in Annex III.

The Member State shall notify any such cases to the Commission in the report provided for in Article 34(1), and shall provide the Commission with all relevant information.

2. The Commission shall, in the light of notifications received, review the list in order to decide on its adaptation, in accordance with the procedure referred to in Article 36(2).

Article 15

Listed non-hazardous waste

1. Where a Member State has evidence to show that a specific waste that appears on the list as hazardous waste does not display any of the properties listed in Annex III, it may treat that waste as non-hazardous waste.

The Member State shall notify any such cases to the Commission in the report provided for in Article 34(1) and shall provide the Commission with the necessary evidence.

2. The Commission shall, in the light of notifications received, review the list in order to decide on its adaptation, in accordance with the procedure referred to in Article 36(2).

SECTION TWO SPECIAL REQUIREMENTS

Article 16 Separation

1. Member States shall take the necessary measures to ensure that the following conditions are met where hazardous waste is mixed, either with other hazardous waste possessing different properties or with other waste, substances or materials:
 - (a) the mixing operation is carried out by an establishment or undertaking which has obtained a permit in accordance with Article 19;
 - (b) the conditions laid down in Article 7 are complied with;
 - (c) the environmental impact of the management of the waste is not worsened;
 - (d) such an operation conforms to best available techniques.

2. Subject to technical and economical feasibility criteria to be determined by the Member States, where hazardous waste has been mixed, in a manner contrary to paragraph 1, with other hazardous waste possessing different properties or with other wastes, substances or materials, separation shall be effected where necessary in order to comply with Article 7.

Article 17 Labelling

1. Member States shall take the necessary measures to ensure that, in the course of collection, transport and temporary storage, hazardous waste is packaged and labelled in accordance with the international and Community standards in force.

2. Whenever hazardous waste is transferred, it shall be accompanied by an identification form as referred to in Council Regulation (EC) No 259/93.

Article 18 Mineral waste oils

Without prejudice to the obligations related to the handling of hazardous waste laid down in Articles 16 and 17, Member States shall take the necessary measures to ensure that mineral waste oils are collected and handled in accordance with Article 7.

Chapter V

Permits or registration

SECTION 1

PERMITS

SUBSECTION 1

GENERAL

Article 19

Issuing

1. Member States shall require any establishment or undertaking intending to carry out disposal or recovery operations to obtain a permit from the national competent authorities.

Such permits shall specify the following:

- (a) the types and quantities of waste that may be treated;
- (b) for each type of operation permitted, the technical requirements relevant to the site concerned;
- (c) the security precautions to be taken;
- (d) the method to be used for each type of operation.

Permits may specify additional conditions and obligations.

2. Permits may be granted for a specified period and they may be renewable.
3. Where the national competent authority considers that the intended method of treatment is unacceptable from the point of view of environmental protection, it shall refuse to issue a permit.
4. It shall be a condition of any permit covering energy recovery that the recovery of energy is to take place with a high level of energy efficiency.

Article 20

Permits under Directive 96/61/EC

Article 19(1) of this Directive shall not apply in the case of an establishment or undertaking which has obtained a permit under Directive 96/61/EC.

Article 21
Implementing measures

The Commission may, in accordance with the procedure referred to in Article 36(2), adopt minimum standards for permits designed to ensure that the waste is treated in an environmentally sound manner.

SUBSECTION 2
EXEMPTIONS

Article 22
Eligibility

Member States may exempt the following from the requirement laid down in Article 19(1):

- (a) establishments or undertakings carrying out their own waste treatment at the place of production;
- (b) establishments or undertakings that carry out waste recovery.

Where an establishment or undertaking carries out both disposal and recovery, it may be exempted only in respect of its recovery operations.

Article 23
General rules

1. Where a Member State wishes to allow exemptions, as provided for in Article 22, it shall ensure that the competent authorities lay down, in respect of each type of activity, general rules specifying the types and quantities of waste that may be covered by an exemption, and the method of treatment to be used.

Those rules shall be based on best available techniques and shall be designed to ensure compliance with Article 7.

2. Member States shall inform the Commission of the general rules laid down pursuant to paragraph 1.

Article 24
Hazardous waste

In the case of hazardous waste, Member States may allow the exemption under Article 22 only of establishments or undertakings that carry out recovery operations.

In addition to the general rules provided for in Article 23(1), the Member States shall lay down specific conditions for exemptions relating to hazardous waste, including limit values for the content of hazardous substances in the waste, emission limit values, types of activity, as well as any other necessary requirements for carrying out different forms of recovery.

SECTION 2 REGISTRATION

Article 25 Registration

1. Member States shall ensure that the national competent authority keeps a register of establishments or undertakings which collect or transport waste on a professional basis or which, as dealers or brokers, arrange for the treatment of waste on behalf of others, and which are not subject to a permit requirement pursuant to Article 19(1).

Those establishments or undertakings shall comply with certain minimum standards.

2. All establishments or undertakings exempted in accordance with Subsection 2 of Section 1 shall be entered in the register provided for in paragraph 1.
3. The Commission shall, in accordance with the procedure referred to in Article 36(2), adopt the minimum standards referred to in the second subparagraph of paragraph 1.
4. Member States shall ensure that the system of waste collection and transport within their territory ensures that the waste collected and transported is delivered to appropriate treatment installations respecting the obligations in Article 7.

Chapter VI Waste management

SECTION 1 PLANS

Article 26 Waste management plans

1. Member States shall ensure that their competent authorities establish, in accordance with Article 1, one or more waste management plans, which shall be revised at least every five years.

Those plans shall, alone or in combination, cover the entire geographical territory of the Member State concerned.

2. The waste management plans provided for in paragraph 1 shall set out an analysis of the current waste management situation in the geographical entity concerned, as well as the measures to be taken for the prevention, re-use, recycling, recovery and safe disposal of waste.
3. The waste management plans shall contain at least the following:

- (a) the type, quantity and origin of waste generated as well as waste likely to be treated from outside the national territory;
 - (b) general technical requirements, including collection schemes and treatment methods;
 - (c) any special arrangements for waste streams that pose specific policy, technical or waste management problems;
 - (d) an identification and assessment of existing disposal and major recovery installations as well as historical contaminated waste disposal sites and measures for their rehabilitation;
 - (e) sufficient information, in the form of criteria for site identification, to enable the competent authorities to decide whether to grant authorisation or not for future disposal or major recovery installations;
 - (f) the natural or legal persons empowered to carry out the management of waste;
 - (g) financial and organisational aspects related to the management of waste;
 - (h) an assessment of the usefulness and suitability of particular economic instruments in tackling various waste problems, taking into account the need to maintain the smooth functioning of the internal market.
4. Waste management plans shall be in accordance with the waste planning requirements laid down in Article 14 of Directive 94/62/EC and the strategy for the reduction of biodegradable waste going to landfills, referred to in Article 5 of Directive 1999/31/EC, including significant awareness raising campaigns and the use of economic instruments.
5. The Member States shall notify the Commission of all waste management plans adopted, or of any revisions to their waste management plans.

At the same time, they shall provide the Commission with a general assessment of how the plans will contribute to the aims of this Directive. That assessment shall include the strategic environmental assessment of waste management plans provided for in Directive 2001/42/EC.

Article 27
Cooperation between Member States

Member States shall cooperate as appropriate with the other Member States concerned to draw up the waste management plans in accordance with Article 26.

They shall ensure public participation in accordance with Directive 2003/35/EC and notably through placing the plans on a publicly available website.

Article 28
Implementing measures

The Commission shall, in accordance with the procedure referred to in Article 36(2), adopt the format for notification under Article 26(5).

SECTION 2
WASTE PREVENTION PROGRAMMES

Article 29
Establishment

1. Member States shall establish, in accordance with Article 1, waste prevention programmes no later than [*three years after the entry into force of this Directive*].

Such programmes shall either be integrated into the waste management plans provided for in Article 26, or shall function as separate programmes. They shall be drawn up at the geographical level most appropriate for their effective application.

2. Member States shall ensure that stakeholders and the general public have the opportunity to participate in the elaboration of the programmes, and have access to them once elaborated, in accordance with Directive 2003/35/EC.

Article 30
Content

1. In their programmes, Member States shall set waste prevention objectives and shall assess opportunities of taking measures as set out in Annex IV.

Such objectives and measures shall be designed to break the link between economic growth and the environmental impacts associated with the generation of waste.

2. Member States shall determine specific qualitative and quantitative targets and indicators for any measure or combination of measures adopted in order to monitor and assess the progress of individual measures.

Article 31
Review

Member States shall regularly evaluate the waste prevention programmes, and as a minimum before submitting their reports in accordance with Article 34(1).

Chapter VI

Inspections and records

Article 32

Inspections

1. Establishments or undertakings which carry out waste treatment operations, establishments or undertakings which collect or transport waste on a professional basis or which arrange for the treatment of waste on behalf of others, and producers of hazardous waste shall be subject to appropriate periodic inspections by the competent authorities.
2. Inspections concerning collection and transport operations shall cover the origin and destination of the waste collected and transported.

Article 33

Record keeping

1. Establishments or undertakings referred to in Article 19(1), producers of hazardous waste and establishments and undertakings which collect or transport hazardous waste shall keep a record of the quantity, nature, origin, and, where relevant, the destination, frequency of collection, mode of transport and treatment method foreseen in respect of the waste and make that information available, on request, to the competent authorities.
2. For hazardous waste, the records shall be preserved for at least three years except in the case of establishments and undertakings transporting hazardous waste which must keep such records for at least 12 months.

Documentary evidence that the management operations have been carried out shall be supplied at the request of the competent authorities or of a previous holder.

Chapter VIII

Final provisions

Article 34

Reporting and reviewing

1. At intervals of three years Member States shall inform the Commission of the implementation of this Directive, in the form of a sectoral report¹⁵.

¹⁵ Reporting of quantitative information on the generation and treatment of waste shall be brought under the coverage of Regulation (EC) No 2150/2002. The reporting frequencies and deadlines shall be stipulated in the annexes of that Regulation.

The report shall be drawn up on the basis of a questionnaire or outline established by the Commission in accordance with the procedure referred to in Article 6 of Directive 91/692/EEC¹⁶. The report shall be made to the Commission within nine months of the end of the three year period covered by it.

Member States shall include in these reports information on their progress in the implementation of their waste prevention programmes.

In the context of the reporting obligations, data shall be collected on catering waste, enabling the establishment of rules on its safe use, recovery, recycling and disposal.

2. The Commission shall send the questionnaire or outline to the Member States six months before the start of the period covered by the report.
3. The Commission shall publish a Community report on the implementation of this Directive within nine months of receiving the reports from the Member States in accordance with paragraph 1.
4. In the first report that intervenes five years after the entry into force of this Directive the Commission will review the implementation of the Directive and will present a proposal for revision if appropriate.

Article 35

Adaptation to technical progress

The Commission shall, in accordance with the procedure referred to in Article 36(2), adopt the amendments necessary for adapting the Annexes to scientific and technical progress.

Article 36

Committee

1. The Commission shall be assisted by a committee, hereinafter "the Committee".
2. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

3. The Committee shall adopt its rules of procedure.

Article 37

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by [*insert date 24 months after*

¹⁶ OJ L 377, 31.12.1991, p. 48.

the entry into force] at the latest. They shall forthwith communicate to the Commission the text of those provisions and a correlation table between those provisions and the Directive.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. Member States shall communicate to the Commission the texts of the main provisions of national law which they adopt in the field covered by this Directive.

Article 38
Repeal

Directives 75/439/EEC, 75/442/EEC and 91/689/EEC are repealed.

References to the repealed Directives shall be construed as references to this Directive and shall be read in accordance with the correlation table set out in Annex V.

Article 39
Entry into force

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Article 40
Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament
The President

For the Council
The President

ANNEX I

DISPOSAL OPERATIONS

D 1 Deposit into or onto land (e.g. landfill, etc.)

D 2 Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.)

D 3 Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)

D 4 Surface impoundment (e.g. placement of liquid or sludgy discards into pits, ponds or lagoons, etc.)

D 5 Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)

D 6 Release into a water body except seas/oceans

D 7 Release into seas/oceans including sea-bed insertion

D 8 Biological treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12

D 9 Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12 (e.g. evaporation, drying, calcination, etc.)

D 10 Incineration on land

D 11 Incineration at sea

D 12 Permanent storage (e.g. emplacement of containers in a mine, etc.)

D 13 Blending or mixing prior to submission to any of the operations numbered D 1 to D 12

D 14 Repackaging prior to submission to any of the operations numbered D 1 to D 13

D 15 Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage, pending collection, on the site where the waste is produced)

ANNEX II

RECOVERY OPERATIONS

R1 Use principally as a fuel or other means to generate energy.

This includes incineration facilities dedicated to the processing of municipal solid waste only where their energy efficiency is equal to or above:

- 0.60 for installations in operation and permitted in accordance with applicable Community legislation before 1 January 2009,
- 0.65 for installations permitted after 31 December 2008,

using the following formula¹⁷:

$$\text{Energy efficiency} = (E_p - (E_f + E_i)) / (0.97 \times (E_w + E_f))$$

In which:

E_p means annual energy produced as heat or electricity. It is calculated with energy in the form of electricity being multiplied by 2.6 and heat produced for commercial use multiplied by 1.1 (GJ/year)

E_f means annual energy input to the system from fuels contributing to the production of steam (GJ/year)

E_w means annual energy contained in the treated waste calculated using the lower net calorific value of the waste (GJ/year)

E_i means annual energy imported excluding E_w and E_f (GJ/year)

0.97 is a factor accounting for energy losses due to bottom ash and radiation.

R 2 Solvent reclamation/regeneration

R 3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)

R 4 Recycling/reclamation of metals and metal compounds

R 5 Recycling/reclamation of other inorganic materials

R 6 Regeneration of acids or bases

R 7 Recovery of components used for pollution abatement

R 8 Recovery of components from catalysts

¹⁷ This formula is based on information contained in the reference document on the Best Available Techniques for waste incineration.

R 9 Oil re-refining or other reuses of oil

R 10 Land treatment resulting in benefit to agriculture or ecological improvement

R 11 Use of wastes obtained from any of the operations numbered R 1 to R 10

R 12 Exchange of wastes for submission to any of the operations numbered R 1 to R 11

R 13 Storage of wastes pending any of the operations numbered R 1 to R 12 (excluding temporary storage, pending collection, on the site where the waste is produced)

ANNEX III

PROPERTIES OF WASTES WHICH RENDER THEM HAZARDOUS

H1 'Explosive': substances and preparations which may explode under the effect of flame or which are more sensitive to shocks or friction than dinitrobenzene.

H2 'Oxidizing': substances and preparations which exhibit highly exothermic reactions when in contact with other substances, particularly flammable substances.

H3-A 'Highly flammable':

- liquid substances and preparations having a flash point below 21 °C (including extremely flammable liquids), or
- substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or
- solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or
- gaseous substances and preparations which are flammable in air at normal pressure, or
- substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities.

H3-B 'Flammable': liquid substances and preparations having a flash point equal to or greater than 21 °C and less than or equal to 55 °C.

H4 'Irritant': non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation.

H5 'Harmful': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.

H6 'Toxic': substances and preparations (including very toxic substances and preparations) which, if they are inhaled or ingested or if they penetrate the skin, may involve serious, acute or chronic health risks and even death.

H7 'Carcinogenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence.

H8 'Corrosive': substances and preparations which may destroy living tissue on contacts.

H9 'Infectious': substances containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms.

H10 'Teratogenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce non-hereditary congenital malformations or increase their incidence.

H11 ‘Mutagenic’: substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce hereditary genetic defects or increase their incidence.

H12 Substances and preparations which release toxic or very toxic gases in contact with water, air or an acid.

H13 Substances and preparations capable by any means, after disposal, of yielding another substance, e.g. a leachate, which possesses any of the characteristics listed above.

H14 ‘Ecotoxic’: substances and preparations which present or may present immediate or delayed risks for one or more sectors of the environment.

Notes

1. Attribution of the hazardous properties ‘toxic’ (and ‘very toxic’), ‘harmful’, ‘corrosive’ and ‘irritant’ is made on the basis of the criteria laid down by Annex VI, part I A and part II B, of Council Directive 67/548/EEC¹⁸ as amended.
2. With regard to attribution of the properties ‘carcinogenic’, ‘teratogenic’ and ‘mutagenic’, and reflecting the most recent findings, additional criteria are contained in the ‘Guide to the classification and labelling of dangerous substances and preparations’ set out in Part II D of Annex VI to Directive 67/548/EEC as amended.

Test methods

The methods to be used are those described in Annex V to Directive 67/548/EEC as amended.

¹⁸ OJ 196, 16.8.1967, p. 1.

ANNEX IV

WASTE PREVENTION MEASURES

Measures that can affect the framework conditions related to the generation of waste

1. The use of planning measures, or other economic instruments affecting the availability and price of primary resources.
2. The promotion of research and development into the area of achieving cleaner and less wasteful products and technologies and the dissemination and use of the results of such research and development.
3. The development of effective and meaningful indicators of the environmental pressures associated with the generation of waste at all levels, from product comparisons through action by local authorities to national measures.

Measures that can affect the design and production phase

4. The promotion of eco-design (the systematic integration of environmental aspects into product design with the aim to improve the environmental performance of the product throughout its whole life cycle).
5. The provision of information on waste prevention techniques with a view to facilitating the implementation of Best Available Techniques by industry.
6. Organise training of competent authorities as regards the insertion of waste prevention requirements in permits under this Directive and Directive 96/61/EC.
7. The inclusion of measures to prevent waste production at installations not falling under Directive 96/61/EC. Where appropriate, such measures could include waste prevention assessments or plans.
8. The use of awareness campaigns or the provision of financial, decision making or other support to businesses. Such measures are likely to be particularly effective where they are aimed at, and adapted to, small and medium sized enterprises and work through established business networks.
9. The use of voluntary agreements, consumer/producer panels or sectoral negotiations in order that the relevant businesses or industrial sectors set their own waste prevention plans or objectives or correct wasteful products or packaging.
10. The promotion of credible environmental management systems, including ISO 14001.

Measures that can affect the consumption and use phase

11. Economic instruments such as incentives for clean purchases or the institution of an obligatory payment by consumers for a given article or element of packaging that would otherwise be provided free of charge.

12. The use of awareness campaigns and information provision directed at the general public or a specific set of consumers.
13. The promotion of creditable eco-labels.
14. Agreements with industry, such as the use of product panels such as those being carried out within the framework of Integrated Product Policies or with retailers on the availability of waste prevention information and products with a lower environmental impact.
15. In the context of public and corporate procurement, the integration of environmental and waste prevention criteria into calls for tenders and contracts, in line with the Handbook on environmental public procurement published by the Commission on 29 October 2004.
16. The promotion of the reuse and/or repair of appropriate discarded products, notably through the establishment or support of repair/reuse networks.

ANNEX V

CORRELATION TABLE

Directive 75/442/EEC	This Directive
Article 1(a)	Article 3(1)(a)
Article 1(a)(2)	Article 4
Article 1(b)	Article 3(1)(b)
Article 1(c)	Article 3(1)(c)
Article 1(d)	Article 3(1)(d)
Article 1(e)	Article 5
Article 1(f)	Article 6
Article 1(g)	Article 3(1)(e)
Article 2(1)	Article 2
Article 2(2)	-
Article 3(1)	Article 1
Article 3(2)	-
Article 4	Article 7
Article 5	Article 10
Article 6	-
Article 7(1),(2)	Article 26
Article 7(3)	-
Article 8	Article 8
Article 9	Article 19
Article 10	Article 19
Article 11	Articles 22 - 24
Article 12	Article 25
Article 13	Article 32

Article 14	Article 33
Article 15	Article 9
Article 16	Article 34
Article 17	Article 35
Article 18	Article 36
Article 19	Article 37
Article 20	Article 38
Article 21	Article 39
Annex I	-
Annex IIA	Annex I
Annex IIB	Annex II
Directive 75/439/EEC	
Article 1(1)	Article 3(1)(g)
Article 2	Article 18 and 7
Article 3(1), (2)	-
Article 3(3)	Article 7
Article 4	Article 7
Article 5(1)	-
Article 5(2)	-
Article 5(3)	-
Article 5(4)	Article 19, 25
Article 6	Article 19
Article 7(a)	Article 7
Article 7(b)	-
Article 8(1)	-

Article 8(2)(a)	-
Article 8(2)(b)	-
Article 8(3)	-
Article 9	-
Article 10(1)	Article 16
Article 10(2)	Article 7
Article 10(3),(4)	-
Article 10(5)	Articles 12 to 15
Article 11	Article 25
Article 12	Article 25
Article 13(1)	Article 32
Article 13(2)	-
Article 14	-
Article 15	-
Article 16	-
Article 17	-
Article 18	Article 34
Article 19	-
Article 20	-
Article 21	-
Article 22	-
Annex I	-
Directive 91/689/EEC	
Article 1(1)	-
Article 1(2)	-

Article 1(3)	Article 3
Article 1(4)	Articles 3 and 12 to 15
Article 2(1)	Article 34
Article 2(2)-(4)	Article 16
Article 3	Articles 19 to 24
Article 4(1)	Article 32
Article 4(2)(3)	Article 33
Article 5(1)	Article 17
Article 5(2)	Article 32
Article 5(3)	Article 33
Article 6	Article 26
Article 7	-
Article 8	-
Article 9	-
Article 10	-
Article 11	-
Article 12	-
Annex I, II	-
Annex III	Annex III